Description of New Source Construction

The Office of Air Quality (OAQ) has reviewed an application for new source construction, submitted by Riverview Energy Corporation on January 25, 2018, relating to construction of a coal-to-liquid fuels facility. The following is a list of the proposed emission units and pollution control devices:

(a) Coal handling operations, identified as Block 1000, consisting of:

(1) One (1) shelter-type railcar dump unloading facility, identified as EU-1000, approved in 2018 for construction, with a maximum capacity of 5,000 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by baghouse EU-1000, exhausting to stack EU-1000, consisting of:

(A) Two (2) unloading chutes, identified as Unloading Chute 1 and Unloading Chute 2, discharging to Unloading Hopper 1 and Unloading Hopper 2, respectively.
(B) Two (2) unloading hoppers, identified as Unloading Hopper 1 and Unloading Hopper 2, discharging to Drag Flight Feeder 1 and Drag Flight Feeder 2, respectively.
(C) Two (2) drag flight feeders, identified as Drag Flight Feeder 1 and Drag Flight Feeder 2, discharging to Conveyor 1.

Under the NSPS, 40 CFR 60, Subpart Y, EU-1000 is an affected facility.

(2) One (1) enclosed rail unloading conveyor discharging to the Conveyor 1 Transfer Station, identified as Conveyor 1, approved in 2018 for construction, with a maximum capacity of 5,000 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by baghouse EU-1001, exhausting to stack EU-1001.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 1 is an affected facility.

(3) One (1) enclosed transfer station discharging to Conveyor 2, Conveyor 3, or Conveyor 9, identified as EU-1001, approved in 2018 for construction, with a maximum capacity of 5,000 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by baghouse EU-1001, exhausting to stack EU-1001.

Under the NSPS, 40 CFR 60, Subpart Y, EU-1001 is an affected facility.

(4) One (1) enclosed feed conveyor discharging to Stacker 1 Boom Conveyor 2A, identified as Conveyor 2, approved in 2018 for construction, with a maximum capacity of 5,000 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 2 is an affected facility.

(5) One (1) enclosed stacker boom conveyor discharging to the Stockpile #1 & #2 Discharge Chute, identified as EU-1002, approved in 2018 for construction, with a maximum capacity of 5,000 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 2A is an affected facility.

(6) Two (2) radial conical ring coal storage piles, approved in 2018 for construction, identified as Stockpile #1 and Stockpile #2, with a maximum capacity of 93,000 tons, controlled by a total enclosure.

Under the NSPS, 40 CFR 60, Subpart Y, Stockpiles #1 and #2 are affected facilities.

(7) One (1) enclosed feed conveyor discharging to Stacker 2 Boom Conveyor 3A, identified as Conveyor 3, approved in 2018 for construction, with a maximum capacity of 5,000 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 3 is an affected facility.

(8) One (1) enclosed stacker boom conveyor discharging to the Stockpile #3 & #4 Discharge Chute, identified as Stacker 2 Boom Conveyor 3A, approved in 2018 for construction, with a maximum capacity of 5,000 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 3A is an affected facility.

(9) Two (2) radial conical ring coal storage piles, approved in 2018 for construction, identified as Stockpile #3 and Stockpile #4, with a maximum capacity of 93,000 tons, controlled by a total enclosure.

Under the NSPS, 40 CFR 60, Subpart Y, Stockpiles #3 and #4 are affected facilities.

(10) One (1) reclaimer for Stockpiles #1 & #2, discharging to Reclaimer 1 Conveyor 4, identified as Reclaimer 1, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour, with emissions by the stockpile #1and #2 enclosure.

Under the NSPS, 40 CFR 60, Subpart Y, Reclaimer 1 is an affected facility.

(11) One (1) enclosed reclaimer conveyor, identified as Conveyor 4 discharging to the Reclaim Transfer Structure, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour, with emissions controlled by baghouse EU-1006, exhausting to stack EU-1006.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 4 is an affected facility.

(12) One (1) reclaimer for Stockpiles #3 & #4, discharging to Reclaimer 2 Conveyor 5, identified as Reclaimer 2, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by the stockpile #3 and #4 enclosure.

Under the NSPS, 40 CFR 60, Subpart Y, Reclaimer 2 is an affected facility.

(13) One (1) enclosed reclaimer conveyor, identified as Conveyor 5 discharging to the Reclaim Transfer Structure, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by baghouse EU-1006, exhausting to stack EU-1006.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 5 is an affected facility.

(14) One (1) enclosed transfer station conveyor, identified as Conveyor 9 discharging to the Reclaim Transfer Structure, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by baghouse EU-1006, exhausting to stack EU-1006.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 9 is an affected facility.

(15) One (1) enclosed reclaim transfer structure discharging to Reclaim Transfer Conveyor 6, identified as EU-1006, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by baghouse EU-1006, exhausting to stack EU-1006.

Under the NSPS, 40 CFR 60, Subpart Y, the Reclaim Transfer Structure is an affected facility.

(16) One (1) enclosed raw coal bunker, identified as T32, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by baghouse EU-1006, exhausting to stack EU-1006.

Under the NSPS, 40 CFR 60, Subpart Y, T32 is an affected facility.

(17) One (1) enclosed coal mill conveyor, identified as Conveyor 6 discharging to the Coal Mill & Pulverizer, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, Conveyor 6 is an affected facility.

(18) One (1) enclosed coal mill and pulverizer discharging to the Coal Dryer, identified as Coal Mill & Pulverizer, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, the Coal Mill & Pulverizer is an affected facility.

(19) One (1) enclosed coal dryer discharging to the Pulverized Coal Baghouse, identified as Coal Dryer, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, the Coal Dryer is an affected facility.

(20) One (1) natural gas and process fuel gas-fired heater, identified as EU-1007, approved in 2018 for construction, with a maximum heat input capacity of 55.8 MMBtu/hr, with emissions discharging to the Coal Dryer.

Under the NSPS, 40 CFR 60, Subpart Ja, the heater EU-1007 is an affected facility.

Under the NESHAP, 40 CFR 63, Subpart DDDDD, the heater EU-1007 is an affected source.

(21) One (1) baghouse discharging to the Coal Hopper, identified as Pulverized Coal Baghouse, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, Pulverized Coal Baghouse is an affected facility.

(b) Additives handling operations, identified as Block 1500, consisting of:

(1) Three (3) pneumatic (nitrogen) truck unloading systems discharging to storage silos, identified as Sodium Sulfide (Na_2S) Unloading, Fine Additive Unloading, and Coarse Additive Unloading, approved in 2018 for construction.

(2) Three (3) nitrogen-blanketed storage silos, as follows:

(A) One (1) Na_2S silo, identified as T35, approved in 2018 for construction,

(B) One (1) fine additive silo, identified as T33, approved in 2018 for construction

(C) One (1) coarse additive silo, approved in 2018 for construction,

(4) One (1) nitrogen-blanketed fine additive production system, identified as Fine Additive Production System, approved in 2018 for construction, consisting of:

(A) One (1) coarse additive silo rotary feeder solid weigh scale.
(B) One (1) coarse additive screw conveyor discharging to the Coarse Additive Size Reduction System.
(C) One (1) additive size reduction system, identified as Coarse Additive Size Reduction System discharging to the Block 2000 coarse additive transfer system.

(c) VEBA Combi Cracker (VCC) unit operations, identified as Block 2000, consisting of:

(1) One (1) hopper receiving coal from Block 1000 and discharging to the Feed Prep Screw Conveyor, identified as Coal Hopper, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, the Coal Hopper is an affected facility.

(2) One (1) enclosed screw conveyor discharging to the Feed Premix Drum, identified as Closed Screw Conveyor, approved in 2018 for construction, with a maximum capacity of 500 tons of coal per hour and a bottlenecked capacity of 2,260,080 tons per year, with emissions controlled by what, exhausting to where.

Under the NSPS, 40 CFR 60, Subpart Y, the Closed Screw Conveyor is an affected facility.

(3) One (1) nitrogen-blanketed Na_2S slurry preparation system discharging to the Block 2000 feed premix drum, identified as Na_2S Slurry Preparation, approved in 2018 for construction, consisting of:

(A) One (1) Na_2S silo rotary feeder solid weigh scale.
(B) One (1) Na_2S screw conveyor discharging to the Na_2S mixing drum.
(C) One (1) nitrogen-blanketed mixing drum for Na_2S and Block 2000 vacuum tower VGO (vacuum gas oil)

Under the NSPS, 40 CFR 60, Subpart Ja, the mixing drum is an affected facility.

Under the NSPS, 40 CFR 60, Subpart GGGa, the mixing drum is an affected facility.

Under the NESHAP, 40 CFR 63, Subpart CC, the mixing drum is an affected source.

(4) One (1) nitrogen-blanketed fine additive transfer system discharging to the Block 2000 feed premix drum, identified as Fine Additive Transfer, approved in 2018 for construction, consisting of:

(A) One (1) fine additive silo rotary feeder solid weigh scale.
(B) One (1) fine additive screw conveyor discharging to the Block 2000 feed premix drum.

(5) One (1) nitrogen-blanketed coarse additive transfer system receiving material from the Block 1500 Fine Additive Production System and discharging to the Feed Premix Drum, identified as Coarse Additive Screw Conveyor, approved in 2018 for construction.

(6) One (1) feed premix drum receiving coal, solid additives, and recycled vacuum gas oil (VGO) and discharging to the feed heater, identified as Feed Premix Drum, approved in 2018 for construction, using no controls and discharging emergency and pressure relief streams to the Block 4000 high pressure flare.

(7) One (1) natural gas and process fuel gas-fired indirect feed heater discharging to the 1st stage reactors, identified as EU-2001, approved in 2018 for construction, with a maximum heat input capacity of 128.4 MMBtu/hr, using no add-on controls and exhausting to stack EU-2001.

Under the NSPS, 40 CFR 60, Subpart Ja, the feed heater EU-2001 is an affected facility.

Under the NESHAP, 40 CFR 63, Subpart DDDDD, feed heater EU-2001 is an affected source.

(8) One (1) natural gas and process fuel gas-fired indirect treat gas heater receiving hydrogen from Block 7000 and discharging to the 1st stage reactors, identified as EU-2002, approved in 2018 for construction, with a maximum heat input capacity of 52.8 MMBtu/hr, using no add-on controls and exhausting to stack EU-2002

Under the NSPS, 40 CFR 60, Subpart Ja, the treat gas heater EU-2002 is an affected facility.

Under the NESHAP, 40 CFR 63, Subpart DDDDD, treat gas heater EU-2002 is an affected source.

(9) One (1) first stage reactor - liquid phase hydrocracking system discharging to the hot separator, identified as LPH, approved in 2018 for construction, using no controls and discharging emergency and pressure relief streams to the Block 4000 high pressure flare.

Under the NSPS, 40 CFR 60, Subpart RRR, the first stage reactor - liquid phase hydrocracking system is an affected facility.

(10) One (1) hot separator discharging vapor to the 2nd stage reactors and liquids to the vacuum column feed heater, identified as Hot Separator, approved in 2018 for construction, using no controls and discharging emergency and pressure relief streams to the Block 4000 high pressure flare.

(11) One (1) natural gas and process fuel gas-fired indirect vacuum column feed heater discharging to the vacuum distillation tower, identified as EU-2003, approved in 2018 for construction, with a maximum heat input capacity of 9 MMBtu/hr, using no add on controls and exhausting to stack EU-2003

Under the NSPS, 40 CFR 60, Subpart Ja, the vacuum column feed heater EU-2003 is an

affected facility.

Under the NESHAP, 40 CFR 63, Subpart DDDDD, vacuum column feed heater EU-2003 is an affected source.

(12) One (1) vacuum distillation tower discharging sour LPG to the amine absorber, vapor to the 2nd stage reactors, slop oil to Block 8000(?), phenolic sour water to Block 3000, and hydrogenated residue to Block 5000, identified as Vacuum Distillation Column, approved in 2018 for construction, using no controls and discharging emergency and pressure relief streams to the Block 4000 high pressure flare.

Under the NSPS, 40 CFR 60, Subpart NNN, the vacuum distillation tower is an affected facility.

(13) One (1) second stage reactor - gas phase hydrotreating system discharging to the cold separator, identified as GPH, approved in 2018 for construction, using no controls and discharging emergency and pressure relief streams to the Block 4000 high pressure flare.

Under the NSPS, 40 CFR 60, Subpart RRR, the second stage reactor - gas phase hydrotreating system is an affected facility.

(14) One (1) cold separator discharging non-phenolic sour water to Block 3000 and hydrocarbons to the fractionator heater, identified as Cold Separator, approved in 2018 for construction, using no controls and discharging emergency and pressure relief streams to the Block 4000 high pressure flare.

(15) One (1) natural gas and process fuel gas-fired indirect fractionator heater discharging to the fractionator tower, identified as EU-2004, approved in 2018 for construction, with a maximum heat input capacity of 156 MMBtu/hr, using no add on controls and exhausting to stack EU-2004.

Under the NSPS, 40 CFR 60, Subpart Ja, the fractionator heater EU-2004 is an affected facility.

Under the NSPS, 40 CFR 60, Subpart Db, fractionator heater EU-2004 is an affected facility.

Under the NESHAP, 40 CFR 63, Subpart DDDDD, fractionator heater EU-2004 is an affected source.

(16) One (1) fractionator tower discharging sour LPG to the amine absorber, naphtha and diesel fuel to Block 4000, vacuum gas oil (VGO) to Block 4000 or the Feed Premix Drum, and non-phenolic sour water to Block 3000, identified as Fractionator Tower, approved in 2018 for construction, using no controls and discharging emergency and pressure relief streams to the Block 4000 high pressure flare.

Under the NSPS, 40 CFR 60, Subpart NNN, the fractionator tower is an affected facility.

(17) One (1) amine absorber system discharging sweet LPG to Block 4000 and rich amine to Block 3000, consisting of:

(A) One (1) two-stage high pressure absorber where acid gas from Block 2000 contacts amine solution followed by water wash discharging treated gas to the low pressure absorber and rich amine to the amine recovery unit or rich amine surge tank, identified as HP Absorber, approved in 2018 for construction, and discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

(B) One (1) two-stage low pressure absorber where acid gas from Block 2000 contacts amine solution followed by water wash discharging treated gas to Block 4000 and rich amine to the amine recovery unit or rich amine surge tank, identified as LP Absorber, approved in 2018 for construction, and discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

Under the NSPS, 40 CFR 60, Subpart Ja, the HP Absorber and LP Absorber are part of a sulfur recovery plant that is an affected facility.

(d) Sulfur recovery operations, identified as Block 3000, consisting of:

(1) Amine Regeneration Unit, consisting of:

(A) One (1) heat exchanger where rich amine from Block 2000 or the rich amine surge tank is heated by lean amine discharging rich amine to the stripper and lean amine to storage or the Block 2000 absorbers, identified as Rich Amine-Lean Amine Heat Exchanger, approved in 2018 for construction, and discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

(B) One (1) stripper column discharging lean amine to the Rich Amine-Lean Amine Heat Exchanger or the reboiler and vapor to the overheads condenser, identified as Stripper, approved in 2018 for construction, and discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

(C) One (1) water-cooled condenser discharging condensate to the stripper condenser accumulator, identified as Overheads Condenser, approved in 2018 for construction, and discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

(D) One (1) accumulator drum discharging condensate to stripper reflux or the sour water stripping system and hydrogen sulfide gas to the Sulfur Recovery System, identified as Stripper Condenser Accumulator, approved in 2018 for construction, and discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

(E) One (1) steam-heated reboiler discharging lean amine to the stripper reflux, identified as Stripper Reboiler, approved in 2018 for construction, and discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

Under the NSPS, 40 CFR 60, Subpart Ja, the Amine Recovery Unit is part of a sulfur recovery plant that is an affected facility.

(2) Sour Water Stripping System, consisting of:

(A) One (1) sour water stripping system receiving sour water from the Block 2000 vacuum distillation column, identified as Phenolic Sour Water Stripping System, approved in 2018 for construction, and discharging acid gas to the sulfur recovery system and emergency and pressure relief streams to the Block 4000 sulfur flare.

(B) One (1) sour water stripping system receiving sour water from the Block 2000 cold separator, condensate from the amine regeneration unit stripper condensate accumulator, and sour water from the sulfur recovery system, identified as Non-Phenolic Sour Water Stripping System, approved in 2018 for construction, and discharging acid gas to the sulfur recovery system and emergency and pressure

relief streams to the Block 4000 sulfur flare.

Under the NSPS, 40 CFR 60, Subpart Ja, the Sour Water Stripping System is part of a sulfur recovery plant that is an affected facility.

(3) Sulfur Recovery System, consisting of:

(A) One (1) sulfur recovery unit, identified as Sulfur Recovery Unit A, approved in 2018 for construction, discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

(i) One (1) burner combusting acid gas from the sour water stripper using natural gas and process fuel gas for start-up, identified as A-602A burner, discharging to the acid gas furnace.
(ii) One (1) acid gas furnace, identified as A-602A furnace, discharging to the waste heat boiler.
(iii) One (1) waste heat boiler discharging cooled gas to the Claus reactors and high pressure steam to Block 6000, identified as A-602A Waste Heat Boiler.
(iv) One (1) three-stage Claus reactor train, identified as SRU A reactors, discharging treated gas to the tail gas treatment unit (TGTU) heat exchanger and molten sulfur to the sulfur product pit.
(v) One (1) sulfur product pit, identified as Sulfur Product Pit A, with a maximum throughput capacity of 87,500,000 pounds of sulfur per year and a nominal capacity of 62,500,000 pounds per year, discharging purge air to the TGTU incinerator and molten sulfur to Block 4000.
(vi) One (1) heat exchanger, identified as TGTU A Heat Exchanger, discharging tail gas and hydrogen to the hydrogenation reactor.
(vii) One (1) hydrogenation reactor, identified as R-604A, discharging tail gas to the quench contactor.
(viii) One (1) quench contactor, identified as T-601A, discharging tail gas to the amine absorber and sour water to the non-phenolic sour water stripping system.
(ix) One (1) amine absorber, identified as T-602A, discharging tail gas to the incinerator and rich amine to the amine recovery unit.
(x) One (1) incinerator combusting tail gas and natural gas and process fuel gas, identified as A-605A, with a maximum heat input capacity of 52.75 MMBtu/hr (0.60 MMBtu/hr from tail gas) and a normal heat input capacity of 37.68 MMBtu/hr (0.43 MMBtu/hr from tail gas), exhausting to stack TGTUA

Under the NSPS, 40 CFR 60, Subpart Ja, Sulfur Recovery Unit A is part of a sulfur recovery plant that is an affected facility.

(B) One (1) sulfur recovery unit, identified as Sulfur Recovery Unit B, approved in 2018 for construction, discharging emergency and pressure relief streams to the Block 4000 sulfur flare.

(i) One (1) burner combusting acid gas from the sour water stripper using natural gas and process fuel gas for start-up, identified as A-602B burner, discharging to the acid gas furnace.
(ii) One (1) acid gas furnace, identified as A-602B furnace, discharging to the waste heat boiler.
(iii) One (1) waste heat boiler discharging cooled gas to the Claus reactors and high pressure steam to Block 6000, identified as A-602B Waste Heat Boiler.

(iv) One (1) three-stage Claus reactor train, identified as SRU B reactors, discharging treated gas to the tail gas treatment unit (TGTU) heat exchanger and molten sulfur to the sulfur product pit.

(v) One (1) sulfur product pit, identified as Sulfur Product Pit B, with a maximum throughput capacity of 87,500,000 pounds of sulfur per year and a nominal capacity of 62,500,000 pounds per year, discharging purge air to the TGTU incinerator and molten sulfur to Block 4000.

(vi) One (1) heat exchanger, identified as TGTU B Heat Exchanger, discharging tail gas and hydrogen to the hydrogenation reactor.

(vii) One (1) hydrogenation reactor, identified as R-604B, discharging tail gas to the quench contactor.

(viii) One (1) quench contactor, identified as T-601B, discharging tail gas to the amine absorber and sour water to the non-phenolic sour water stripping system.

(ix) One (1) amine absorber, identified as T-602B, discharging tail gas to the incinerator and rich amine to the amine recovery unit.

(x) One (1) incinerator combusting tail gas and natural gas and process fuel gas, identified as A-605B, with a maximum heat input capacity of 52.75 MMBtu/hr (0.60 MMBtu/hr from tail gas) and a normal heat input capacity of 37.68 MMBtu/hr (0.43 MMBtu/hr from tail gas), exhausting to stack TGTUB

Under the NSPS, 40 CFR 60, Subpart Ja, Sulfur Recovery Unit B is part of a sulfur recovery plant that is an affected facility.

(e) Offsites operations, identified as Block 4000, consisting of:

(1) Flares, as follows:

(A) One (1) flare servicing overpressure and emergency reliefs from Block 2000, identified as High Pressure (HP) Flare, approved in 2018 for construction.

(B) One (1) flare servicing overpressure reliefs from Block 7000, identified as Low Pressure (LP) Flare, approved in 2018 for construction.

(C) One (1) flare servicing overpressure reliefs from Block 3000 and sulfur loading, identified as Sulfur Block Flare, approved in 2018 for construction.

(D) One (1) flare servicing Block 4000 naphtha, diesel, and ammonia loading operations, identified as Loading Flare, approved in 2018 for construction.

Under the NSPS, 40 CFR 60, Subpart Ja, the flares are affected facilities.

(2) Product storage tanks, approved in 2018 for construction, as follows:

ID	Construction[1]	Contents	Capacity (gallons) (m^3)
T1	IFR	Naphtha product	4,629,879 (17,524)
T2	IFR	Naphtha product	4,629,879 (17,524)
T3	FR	Diesel product	4,629,879 (17,524)
T4	FR	Diesel product	4,629,879 (17,524)

ID	Construction[1]	Contents	Capacity (gallons) (m^3)
T5	FR	Diesel product	4,629,879 (17,524)
T6	IFR	Naphtha or diesel product	4,629,879 (17,524)
T7	FR	Molten sulfur	346,367 (1,311)
T8	FR	Molten sulfur	346,367 (1,311)
T9	FR	Ammonia product (pressurized)	36,720 (17,524)
T10	FR	Residue surge tank 1	926,980 (17,524)
T11	FR	Residue surge tank 2	926,980 (3,509)
T12	FR	Residue feed tank	926,980 (3,509)
T13	FR	VGO tank 1	926,980 (3,509)
T14	FR	VGO tank 2	926,980 (3,509)
T15	FR	LPG storage (pressurized)	48,872 (185)
T16	FR	Slop tank	4,195,581 (15,880)
T17	FR	Diesel fuel tank	23,775 (90)
T18	FR	Non-phenolic sour water storage tank 1	1,268,026 (4,799)
T19	FR	Non-phenolic sour water storage tank 2	1,268,026 (4,799)
T20	FR	Non-phenolic sour water storage tank 3	1,268,026 (4,799)
T21	FR	Phenolic sour water storage tank	40,947 (155)
T22	FR	Stripped non-phenolic sour water surge tank	1,268,026 (4,799)
T23	FR	Stripped phenolic sour water surge tank	13,737 (52)
T24	FR	Amine surge/deinventory tank	63,943 (242)
T25	FR	Fresh amine tank	63,943 (242)
T26	FR	Amine containment tank	793 (3)

Notes:
1. FR - fixed roof, IFR - internal floating roof

Under the NSPS, 40 CFR 60, Subpart Kb, T1, T2, and T6 are affected facilities.

(3) Loading operations, as follows:

(A) One (1) 8-spot railcar loading rack for naphtha and diesel, identified as Product

Loading Rack, approved in 2018 for construction, with a maximum capacity of 2,500 gallons per minute at each spot, controlled by the Loading Flare.

Under the NESHAP, 40 CFR 61, Subpart BB, the Product Loading Rack is an affected source.

(B) One (1) single-spot railcar loading rack for ammonia, identified as Ammonia Loading Rack, approved in 2018 for construction, with a maximum capacity of *how much* gallons per minute, controlled by the Loading Flare.

(C) One (1) single-spot railcar loading rack for molten sulfur, identified as Sulfur Loading Rack, approved in 2018 for construction, with a maximum capacity of *how much* gallons per minute, controlled by the Sulfur Block Flare.

(D) One (1) two-spot railcar loading operation for solidified residue, identified as Residue Loading, approved in 2018 for construction, with a maximum capacity of *how much* tons per hour, controlled by *anything*.

Note: One residue loading spot can be used for truck loading.

(f) Residue solidification operations, identified as Block 5000, as follows:

(1) Four (4) pastillators, identified as EU-5001A - EU5001D, approved in 2018 for construction, with a maximum capacity of 4.29 tons per hour, each, using no emissions controls and exhausting to stack EU-5001.

(2) Four (4) pastillators, identified as EU-5002A - EU5002D, approved in 2018 for construction, with a maximum capacity of 4.29 tons per hour, each, using no emissions controls and exhausting to stack EU-5002.

(3) Four (4) pastillators, identified as EU-5003A - EU5003D, approved in 2018 for construction, with a maximum capacity of 4.29 tons per hour, each, using no emissions controls and exhausting to stack EU-5003.

(4) Four (4) pastillators, identified as EU-5004A - EU5004D, approved in 2018 for construction, with a maximum capacity of 4.29 tons per hour, each, using no emissions controls and exhausting to stack EU-5004.

(5) One (1) residue container loading station, identified as EU-5009, approved in 2018 for construction, with a maximum capacity of 51.50 tons per hour, using no emissions controls and exhausting to stack EU-5009.

(6) One (1) residue conveyor discharging to the residue storage silos, identified as Residue Conveyor, approved in 2018 for construction, with a maximum capacity of 51.50 tons per hour, using no emissions controls.

(7) One (1) railcar residue silo, identified as EU-5010, approved in 2018 for construction, with a maximum capacity of 1236 tons per day, using baghouse EU-5010 for particulate control and exhausting to stack EU-5010.

(8) One (1) swing residue silo, identified as EU-5011, approved in 2018 for construction, with a maximum capacity of 1236 tons per day, using baghouse EU-5011 for particulate control and exhausting to stack EU-5011.

(g) Utilities operations, identified as Block 6000, consisting of:

(1) One (1) natural gas and process fuel gas-fired package boiler, identified as EU-6000, approved in 2018 for construction, with a maximum heat input capacity of 68.50 MMBtu/hr, using no add-on controls and exhausting to stack EU-6000.

Under the NSPS, 40 CFR 60, Subpart Ja, boiler EU-6000 is an affected facility.

Under the NSPS, 40 CFR 60, Subpart Dc, boiler EU-6000 is an affected facility.

Under the NESHAP, 40 CFR 63, Subpart DDDDD, boiler EU-6000 is an affected source.

(2) One (1) three-cell crossflow mechanical draft cooling tower, identified as EU-6001, approved in 2018 for construction, with a maximum capacity of 32,000 gallons per hour, using mist eliminators and exhausting to stacks EU-6001, EU-6002, and EU-6003.

(3) One (1) diesel engine-driven emergency generator, identified as EU-6006, approved in 2018 for construction, with a maximum heat input capacity of 17.86 MMBtu/hr (2,800 hp), using no add-on controls and exhausting to stack EU-6006.

Under the NSPS, 40 CFR 60, Subpart IIII, emergency generator EU-6006 is an affected facility.

Under the NESHAP, 40 CFR 63, Subpart ZZZZ, emergency generator EU-6006 is an affected source.

(4) One (1) diesel engine-driven emergency fire pump, identified as EU-6008, approved in 2018 for construction, with a maximum heat input capacity of 5.14 MMBtu/hr (750 hp), using no add-on controls and exhausting to stack EU-6008.

Under the NSPS, 40 CFR 60, Subpart IIII, emergency fire pump EU-6008 is an affected facility.

Under the NESHAP, 40 CFR 63, Subpart ZZZZ, emergency fire pump EU-6008 is an affected source.

(h) Water supply and treatment operations, identified as Block 6500, consisting of:

(1) One (1) pneumatic lime truck unloading system, identified as *what*, approved in 2018 for construction, with a maximum capacity of *how much* pounds per hour, discharging to silo EU-6501.

(2) One (1) lime storage silo, identified as EU-6501, approved in 2018 for construction, with a maximum capacity of *how much*, using a dust collector EU-6501and exhausting to stack EU-6501.

(i) Hydrogen unit operations, identified as Block 7000, as follows:

(1) Hydrogen Plant 1, with a maximum capacity of 557.4 tons of hydrogen per day, consisting of:

(A) One (1) boiler feed water treatment system including deaerator vent EU-7001, identified as Feed Water Treatment System 1, approved in 2018 for construction, using no controls and exhausting to stack EU-7001.

(B) One (1) feed preparation train, identified as Feed Prep 1, approved in 2018 for construction, consisting of

(i) One (1) hydrogenation reactor.
(ii) One (1) hydrogen sulfide adsorber.

(C) One (1) reformer system, consisting of:

(i) One (1) steam-hydrocarbon reformer fired with Block 2000 off-gas and PSA tail gas supplemented by natural gas and process fuel gas and discharging water gas to the CO-shift converter, identified as EU-7003, approved in 2018 for construction, with a maximum heat input capacity of 838.6 MMBtu/hr, using selective catalytic reduction for NOx control and exhausting combustion products to the waste heat recovery boiler.

(ii) One (1) heat recovery boiler, identified as Heat Recovery Boiler 1, approved in 2018 for construction, using no controls and exhausting to stack EU-7003.

(D) One (1) catalytic CO-shift converter, identified as CO-shift Converter 1, approved in 2018 for construction, using no controls and discharging shift gas to the pressure swing adsorber.

(E) One (1) pressure swing adsorber, identified as PSA 1, approved in 2018 for construction, using no controls and discharging hydrogen to feed preparation and Block 2000 and tail gas to the reformer.

(2) Hydrogen Plant 2, with a maximum capacity of 557.4 tons of hydrogen per day, consisting of:

(A) One (1) boiler feed water treatment system including deaerator vent EU-7002, identified as Feed Water Treatment System 2, approved in 2018 for construction, using no controls and exhausting to stack EU-7002.

(B) One (1) feed preparation train, identified as Feed Prep 2, approved in 2018 for construction, consisting of

(i) One (1) hydrogenation reactor.
(ii) One (1) hydrogen sulfide adsorber.

(C) One (1) reformer system, consisting of:

(i) One (1) steam-hydrocarbon reformer fired with Block 2000 off-gas and PSA tail gas supplemented by natural gas and process fuel gas and discharging water gas to the CO-shift converter, identified as EU-7004, approved in 2018 for construction, with a maximum heat input capacity of 838.6 MMBtu/hr, using selective catalytic reduction for NOx control and exhausting combustion products to the waste heat recovery boiler.

(ii) One (1) heat recovery boiler, identified as Heat Recovery Boiler 2, approved in 2018 for construction, using no controls and exhausting to stack EU-7004.

(D) One (1) catalytic CO-shift converter, identified as CO-shift Converter 2, approved in 2018 for construction, using no controls and discharging shift gas to the pressure swing adsorber.

(E) One (1) pressure swing adsorber, identified as PSA 2, approved in 2018 for construction, using no controls and discharging hydrogen to feed preparation and

Block 2000 and tail gas to the reformer.

(j) Wastewater treatment operations, identified as Block 8000, as follows:

(1) *details TBD*

Under the NSPS, 40 CFR 60, Subpart QQQ, *Block 8000* is an affected facility.